

When we talk about granting and sharing access – locks and keys – security and reliability are the most fundamental factors. This is even more important when these applications are becoming increasingly digitalized. Our design principles have always revolved around providing a superior customer experience and industry-leading security, in both the physical and the virtual world.

## Technology review



# Ensuring security in an increasingly digital world



## Catering to the utility industry

The iLOQ S50 was our most important new technology launch in 2018. Launched during the second half of the year, we have some of the first installations already up and running, like the new Telia Helsinki Data Center. Also, negotiations are on-going with many new interested parties. The keyless mobile access sharing solution is quickly proving to be a desirable solution that not only meets the practical usability needs of the utility sector it has been designed for, but also strict requirements in terms of cyber security and reliability.

The heart of our solution for the utility industries is based on iLOQ's cloud-based software solution. This secure online platform allows for efficient management and sharing of digital access rights for a vast network of locks of all types and the real-time sharing of access rights directly to an accredited person's mobile device. Eliminating the need for a huge number of physical keys and the work related to key distribution is a unique and interesting proposition for potential customers.



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Our mobile access sharing platform is both solid and flexible. It allows for a high level of automation and the possibility for integration with other information systems, which is vital for most customers. Being able to understand and accommodate our customer's needs is a testament to both the iLOQ S50 solution and our R&D department.

## It all starts with the lock

All of the physical NFC-enabled locks we deliver for use with the iLOQ S50 mobile access sharing solution have been thoroughly field-tested to ensure they meet the expectations of our utility customers. They work without batteries, making them extremely reliable and virtually maintenance-free. With the NFC-reader replacing the traditional exposed keyway, the locks are not affected by dirt, ice or any other external or weather-related factors.

Janne Heusala, Program Manager at iLOQ explains that simplicity has always been a key design principle for all iLOQ solutions. "When you keep things simple and do things right, a lot less can go wrong." iLOQ has concentrated on making the mechanics of all its locks as simple as possible, hiding the core elements deep within the lock cylinder for added security. Regardless of whether you are looking at a padlock, tube lock or cylinder lock embedded into a door, the basic design within is always the same.



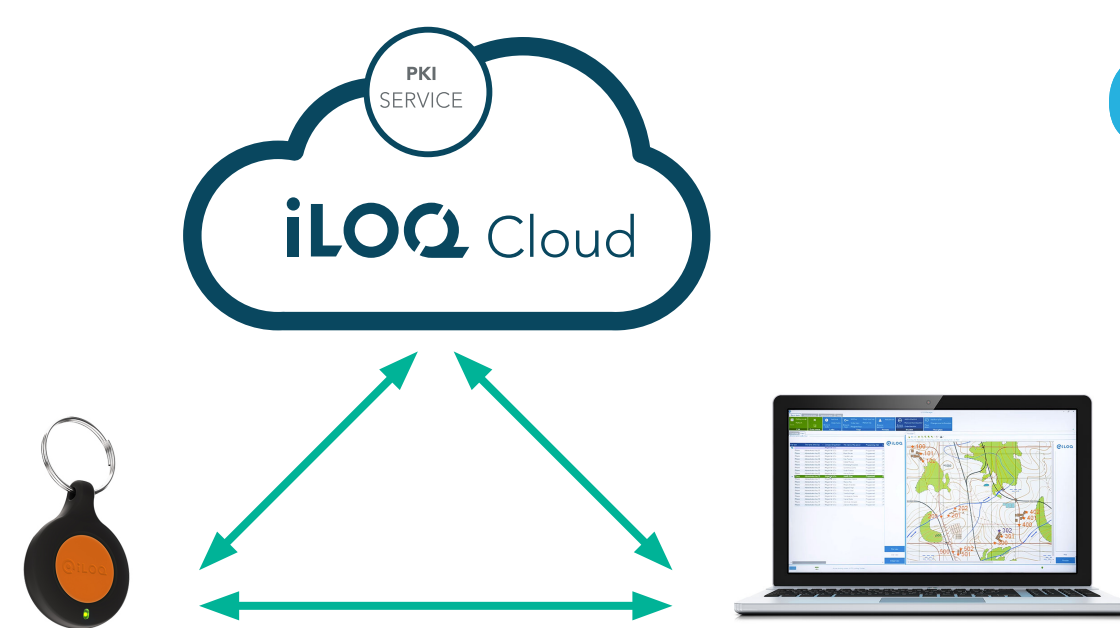
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**Janne Heusala, Program Manager, iLOQ**

## Cyber security is the hot potato

At the same time as digitalization and automation continue to grow in reach and importance, concerns surrounding cyber security have also become a hot topic. Concerns are understandable as digital solutions are often only as good as the engineering behind them. Despite many of the broad generalizations made in the media, security is often one of the highest priorities for companies developing digital and online solutions. This is also the case at iLOQ.

iLOQ has built a solid reputation in terms of their dedication to cyber security. The proven and popular iLOQ S10 digital access management solution has been on the market for more than ten years. The development of the iLOQ S50 has drawn on that long experience and proven design principles. Janne Heusala explains how iLOQ S50 is protected from remote attacks; "Our approach for added data protection includes safety measures that are both physical and digital to ensure the highest possible level of cyber security. In addition to the strong AES 256 encryption used in all data transfer, whether it is by cable or over the air, we have brought an addition physical aspect to data security with the iLOQ Programming Token. The physical presence of the token is needed to gain access to critical information, which is fragmented between the cloud-based customer server and the iLOQ Manager Software."



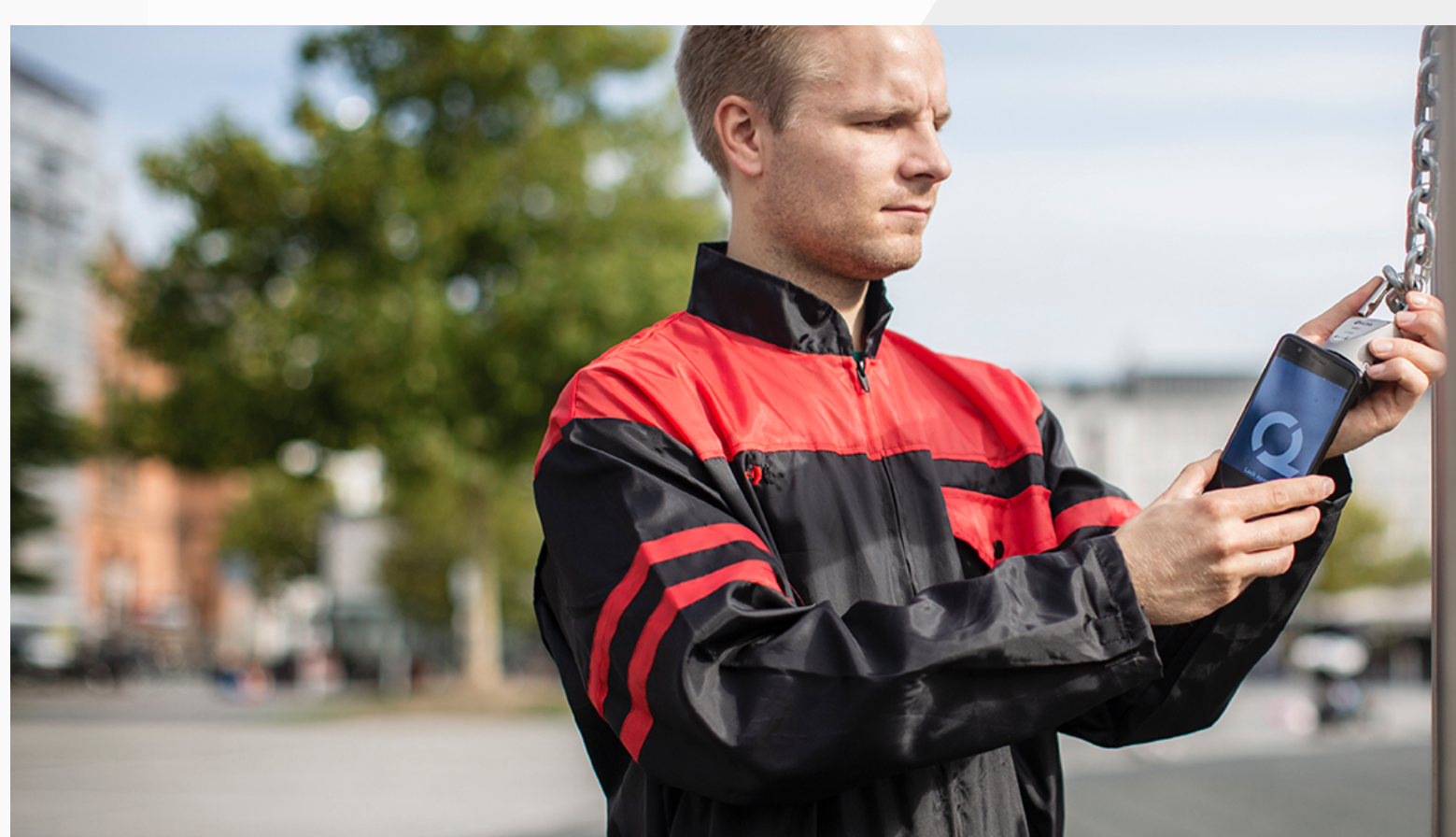
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**Janne Heusala, Program Manager, iLOQ**

iLOQ's R&D department has put a great deal of effort into creating a user experience that is easy and enjoyable, serving the needs of the customer. They have split their time equally between exploring how the iLOQ S50 will be used and how the same solution could be misused. Mobile apps and devices are generally safe until someone attempts to tamper with or hack a device. This is when security comes under scrutiny and added in-app protection and built-in safety mechanics become vital. "Unfortunately, we can't count on everyone being honest, which is why we have gone to great lengths to identify and model all possible types of misuse and ensure the security and functionality of our solution under all possible circumstances," Janne Heusala points out.

## Security is a continuous process

While we at iLOQ know that our locks will perform and maintain their level of security for an extended period after installation, cyber security on the mobile and digital side of things requires continuous work. "Developments in digital technology happen in increasingly fast cycles, which is why we must stay awake and vigilant," Janne Heusala sums up. "In terms of security, we must assess all changing and evolving risks and stay ahead." The R&D department at iLOQ looks at every software update and new development in the Google and Android environment to ensure that cyber security stays at an industry-leading level. iLOQ values the trust customers place in our solutions and our company, and our aim is to continue to earn that trust every day.



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